

The Morning Email: TERM TEDS & Dirty TEDS

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Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days.

Want something added? Let me know: jgoulding@ghco.com

Disclaimer:All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

F.I. Futures and Cash				
	Last Decimal	Last 32	Last Yield*	**MDuration
ZT	101.4750	101.152	5.112	1.89
ZF	103.0938	103.030	5.166	3.97
ZN	104.1406	104.045	5.187	5.78
2y	99.584	99.1870	5.096	2.02
5y	98.172	98.0550	5.173	4.28
10y	94.375	94.1200	5.232	7.80

*Futures use CTD for Last Yield

**Mduration = Modified Macaulay Duration

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM07	94.640	5.360	3	0.008	JUN	} White Pack
EDAU07	94.625	5.375	94	0.257	SEP	
EDAZ07	94.585	5.415	185	0.506	DEC	
EDAH08	94.585	5.415	276	0.756	MAR	} Red Pack
EDAM08	94.585	5.415	367	1.005	JUN	
EDAU08	94.560	5.440	458	1.254	SEP	
EDAZ08	94.520	5.480	549	1.503	DEC	
EDAH09	94.490	5.510	640	1.753	MAR	} Green Pack
EDAM09	94.450	5.550	731	2.002	JUN	
EDAU09	94.410	5.590	822	2.251	SEP	
EDAZ09	94.375	5.625	913	2.501	DEC	
EDAH10	94.370	5.630	1004	2.750	MAR	

How many ways can you hedge the TED? Let me count...there's lots and lots, like:

- 1 Regression
 - 2 Engineered
 - 3 Strip with and without Stubs
 - 4 Convexity Bias
 - 5 Weighted
 - 6 Unweighted
- and more...

Most of us are interested in the *unweighted hedge* which is simply a curve trade hedge. There are so many ways to hedge the TED trade that I can't possibly list them all.

If you email me and ask for a specific hedge, I'll get it to you.

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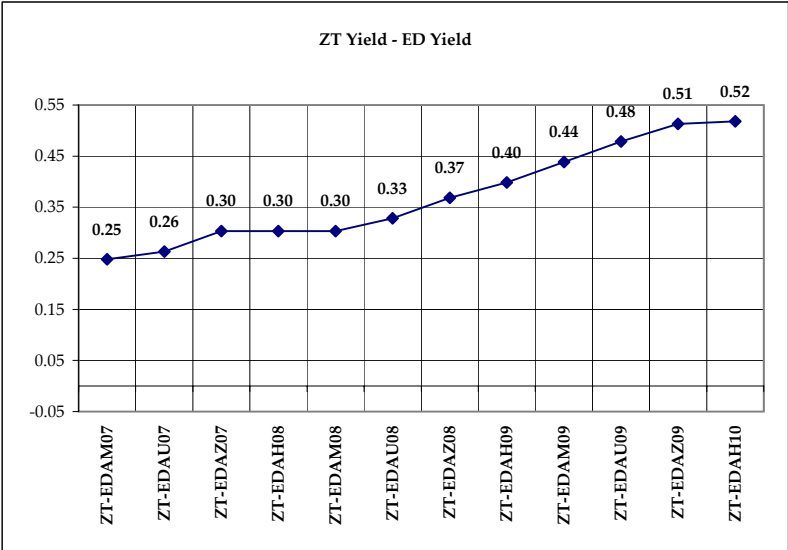
Eurodollar Color Codes for Individual Year Strips:

Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

Dirty TED: ZT vs Eurodollar Contracts

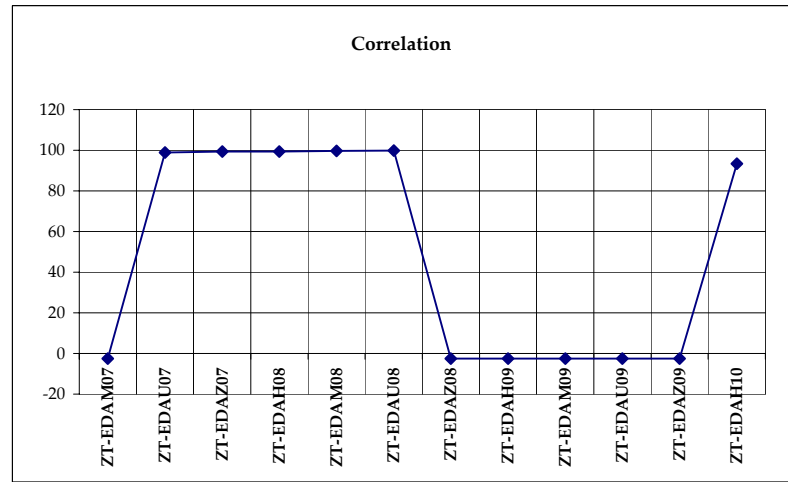
	ZT			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAM07	6.835	0.25	ZT-EDAM07	-2.511
EDAU07	6.850	0.26	ZT-EDAU07	98.828
EDAZ07	6.890	0.30	ZT-EDAZ07	99.301
EDAH08	6.890	0.30	ZT-EDAH08	99.380
EDAM08	6.890	0.30	ZT-EDAM08	99.742
EDAU08	6.915	0.33	ZT-EDAU08	99.824
EDAZ08	6.955	0.37	ZT-EDAZ08	-2.511
EDAH09	6.985	0.40	ZT-EDAH09	-2.511
EDAM09	7.025	0.44	ZT-EDAM09	-2.511
EDAU09	7.065	0.48	ZT-EDAU09	-2.511
EDAZ09	7.100	0.51	ZT-EDAZ09	-2.511
EDAH10	7.105	0.52	ZT-EDAH10	93.414

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



	GE Duration as Fraction of year	ZT Duration	Spread Duration	
EDAM07	0.008	1.89	1.88	ZT-EDAM07
EDAU07	0.257	1.89	1.63	ZT-EDAU07
EDAZ07	0.506	1.89	1.38	ZT-EDAZ07
EDAH08	0.756	1.89	1.13	ZT-EDAH08
EDAM08	1.005	1.89	0.88	ZT-EDAM08
EDAU08	1.254	1.89	0.63	ZT-EDAU08
EDAZ08	1.503	1.89	0.38	ZT-EDAZ08
EDAH09	1.753	1.89	0.13	ZT-EDAH09
EDAM09	2.002	1.89	(0.12)	ZT-EDAM09
EDAU09	2.251	1.89	(0.37)	ZT-EDAU09
EDAZ09	2.501	1.89	(0.62)	ZT-EDAZ09
EDAH10	2.750	1.89	(0.86)	ZT-EDAH10

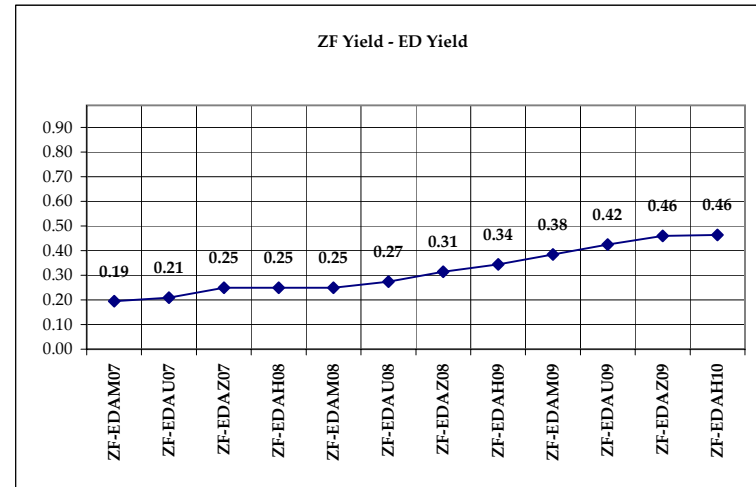
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

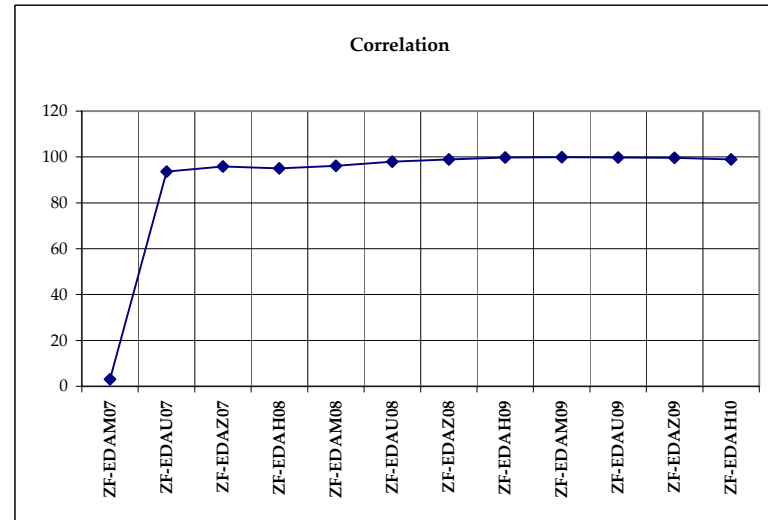
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	8.45	0.19	ZF-EDAM07	3.036
EDAU07	8.47	0.21	ZF-EDAU07	93.581
EDAZ07	8.51	0.25	ZF-EDAZ07	95.832
EDAH08	8.51	0.25	ZF-EDAH08	94.971
EDAM08	8.51	0.25	ZF-EDAM08	96.195
EDAU08	8.53	0.27	ZF-EDAU08	98.007
EDAZ08	8.57	0.31	ZF-EDAZ08	98.916
EDAH09	8.60	0.34	ZF-EDAH09	99.742
EDAM09	8.64	0.38	ZF-EDAM09	99.880
EDAU09	8.68	0.42	ZF-EDAU09	99.726
EDAZ09	8.72	0.46	ZF-EDAZ09	99.583
EDAH10	8.72	0.46	ZF-EDAH10	99.000

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



	GE Duration as Fraction of year	ZF Duration	Spread Duration	
EDAM07	0.008	3.97	3.96	ZF-EDAM07
EDAU07	0.257	3.97	3.71	ZF-EDAU07
EDAZ07	0.506	3.97	3.46	ZF-EDAZ07
EDAH08	0.756	3.97	3.21	ZF-EDAH08
EDAM08	1.005	3.97	2.96	ZF-EDAM08
EDAU08	1.254	3.97	2.71	ZF-EDAU08
EDAZ08	1.503	3.97	2.46	ZF-EDAZ08
EDAH09	1.753	3.97	2.21	ZF-EDAH09
EDAM09	2.002	3.97	1.96	ZF-EDAM09
EDAU09	2.251	3.97	1.71	ZF-EDAU09
EDAZ09	2.501	3.97	1.47	ZF-EDAZ09
EDAH10	2.750	3.97	1.22	ZF-EDAH10

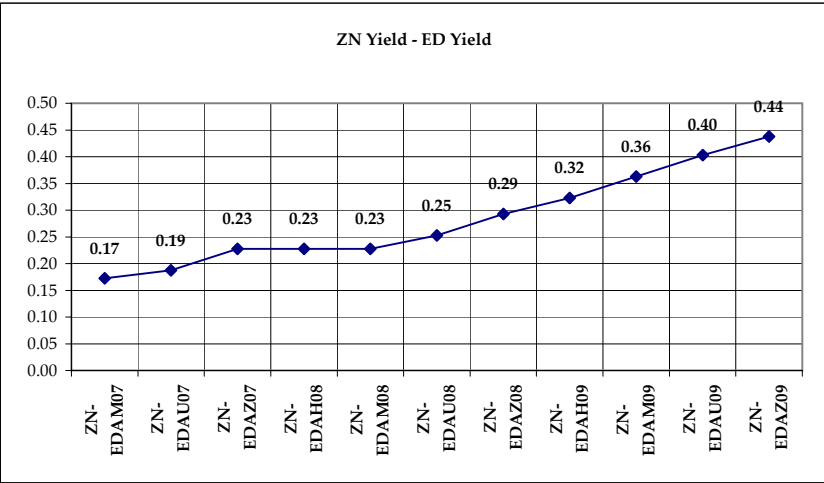
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

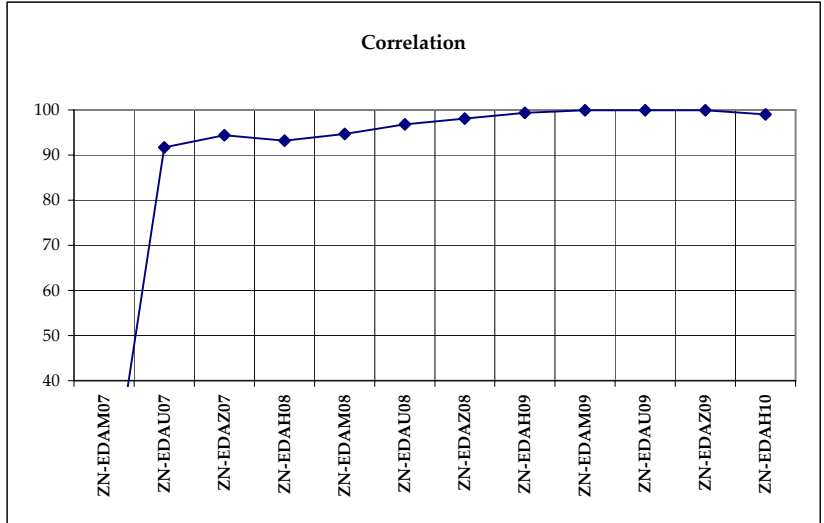
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	9.50	0.17	ZN-EDAM07	4.16
EDAU07	9.52	0.19	ZN-EDAU07	91.71
EDAZ07	9.56	0.23	ZN-EDAZ07	94.38
EDAH08	9.56	0.23	ZN-EDAH08	93.21
EDAM08	9.56	0.23	ZN-EDAM08	94.65
EDAU08	9.58	0.25	ZN-EDAU08	96.84
EDAZ08	9.62	0.29	ZN-EDAZ08	98.08
EDAH09	9.65	0.32	ZN-EDAH09	99.35
EDAM09	9.69	0.36	ZN-EDAM09	99.91
EDAU09	9.73	0.40	ZN-EDAU09	99.92
EDAZ09	9.77	0.44	ZN-EDAZ09	99.91
EDAH10	9.77	0.44	ZN-EDAH10	99.00

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



	GE Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM07	0.008	5.78	5.77	ZN-EDAM07
EDAU07	0.257	5.78	5.52	ZN-EDAU07
EDAZ07	0.506	5.78	5.27	ZN-EDAZ07
EDAH08	0.756	5.78	5.02	ZN-EDAH08
EDAM08	1.005	5.78	4.77	ZN-EDAM08
EDAU08	1.254	5.78	4.52	ZN-EDAU08
EDAZ08	1.503	5.78	4.28	ZN-EDAZ08
EDAH09	1.753	5.78	4.03	ZN-EDAH09
EDAM09	2.002	5.78	3.78	ZN-EDAM09
EDAU09	2.251	5.78	3.53	ZN-EDAU09
EDAZ09	2.501	5.78	3.28	ZN-EDAZ09
EDAH10	2.750	5.78	3.03	ZN-EDAH10

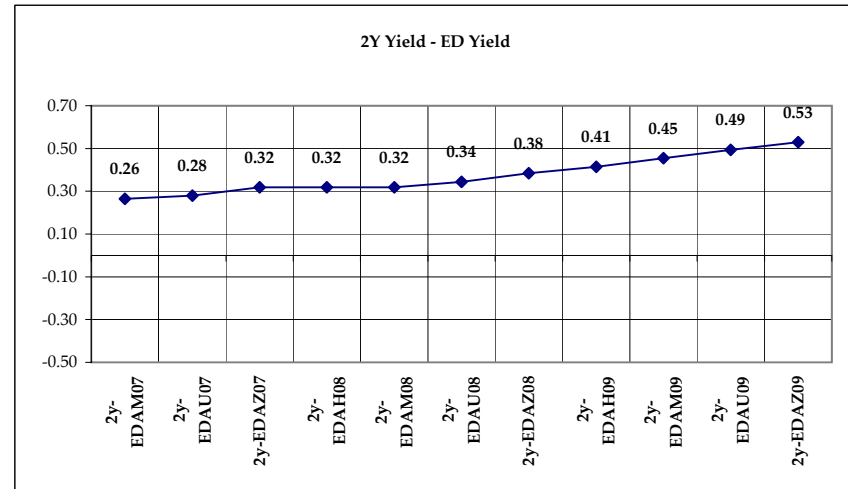
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

2y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	4.94	0.26	2y-EDAM07	-13.556
EDAU07	4.96	0.28	2y-EDAU07	-94.815
EDAZ07	5.00	0.32	2y-EDAZ07	-94.696
EDAH08	5.00	0.32	2y-EDAH08	-95.324
EDAM08	5.00	0.32	2y-EDAM08	-96.220
EDAU08	5.02	0.34	2y-EDAU08	-97.263
EDAZ08	5.06	0.38	2y-EDAZ08	-13.556
EDAH09	5.09	0.41	2y-EDAH09	-13.556
EDAM09	5.13	0.45	2y-EDAM09	-13.556
EDAU09	5.17	0.49	2y-EDAU09	-13.556
EDAZ09	5.21	0.53	2y-EDAZ09	-13.556
EDAH10	5.21	0.53	2y-EDAH10	-94.547

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days.
 These are measuring YIELD correlations.

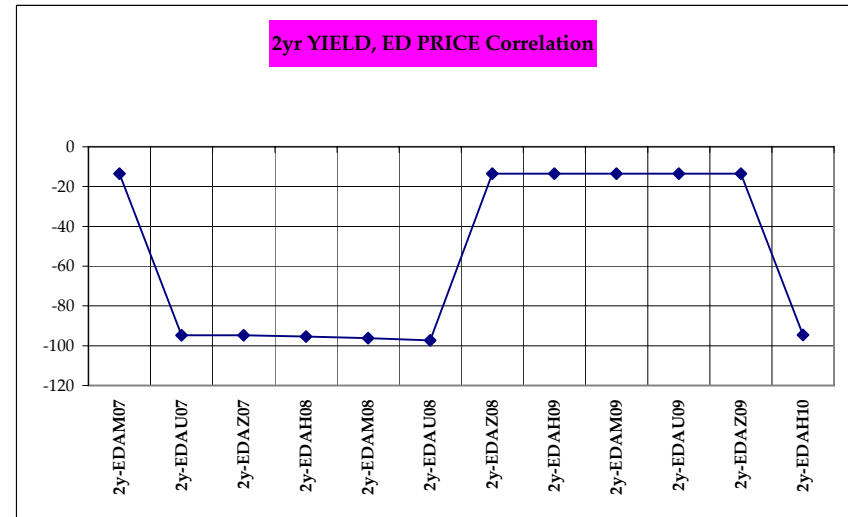


GE Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM07	0.008	2.02	2.01	2y-EDAM07
EDAU07	0.257	2.02	1.77	2y-EDAU07
EDAZ07	0.506	2.02	1.52	2y-EDAZ07
EDAH08	0.756	2.02	1.27	2y-EDAH08
EDAM08	1.005	2.02	1.02	2y-EDAM08
EDAU08	1.254	2.02	0.77	2y-EDAU08
EDAZ08	1.503	2.02	0.52	2y-EDAZ08
EDAH09	1.753	2.02	0.27	2y-EDAH09
EDAM09	2.002	2.02	0.02	2y-EDAM09
EDAU09	2.251	2.02	(0.23)	2y-EDAU09
EDAZ09	2.501	2.02	(0.48)	2y-EDAZ09
EDAH10	2.750	2.02	(0.73)	2y-EDAH10

The farther away from 0 the spread duration is the riskier the trade.

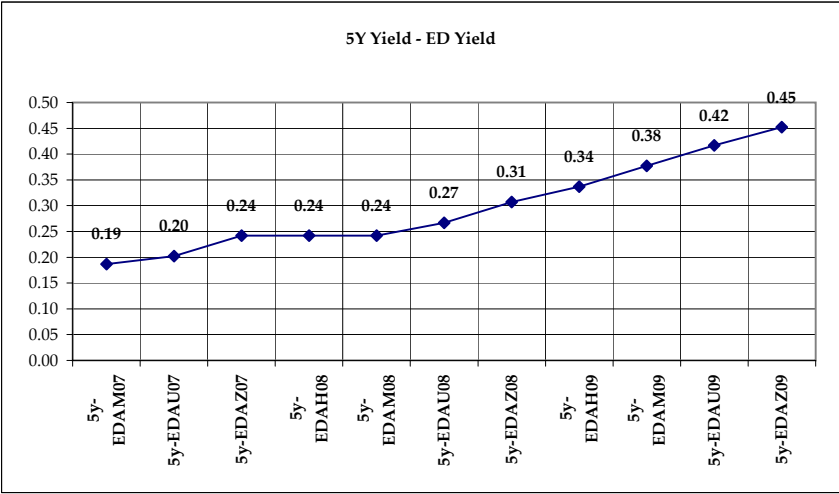
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	3.53	0.19	5y-EDAM07	-10.866
EDAU07	3.55	0.20	5y-EDAU07	-88.793
EDAZ07	3.59	0.24	5y-EDAZ07	-90.384
EDAH08	3.59	0.24	5y-EDAH08	-89.909
EDAM08	3.59	0.24	5y-EDAM08	-91.805
EDAU08	3.61	0.27	5y-EDAU08	-94.590
EDAZ08	3.65	0.31	5y-EDAZ08	-10.866
EDAH09	3.68	0.34	5y-EDAH09	-10.866
EDAM09	3.72	0.38	5y-EDAM09	-10.866
EDAU09	3.76	0.42	5y-EDAU09	-10.866
EDAZ09	3.80	0.45	5y-EDAZ09	-10.866
EDAH10	3.80	0.46	5y-EDAH10	-98.815

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days
 These are measuring YIELD correlations.

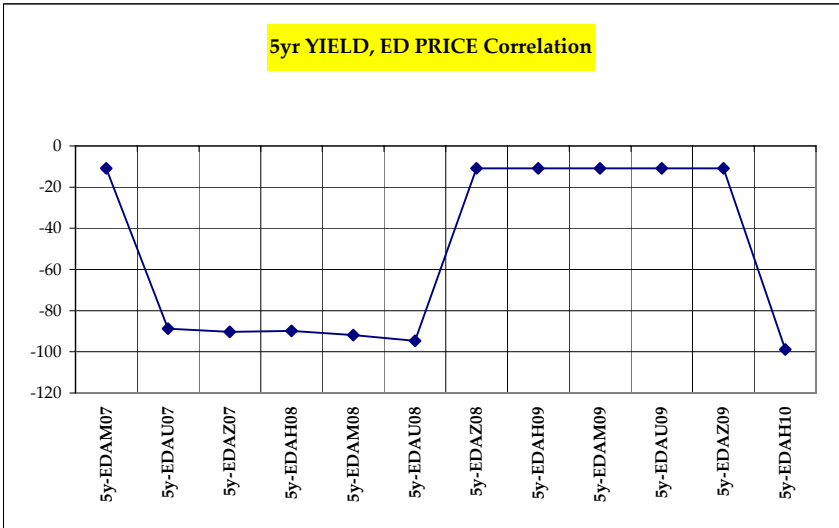


GE Duration as

	Fraction of year	5Y Duration	Spread Duration	
EDAM07	0.008	4.28	4.27	5y-EDAM07
EDAU07	0.257	4.28	4.02	5y-EDAU07
EDAZ07	0.506	4.28	3.77	5y-EDAZ07
EDAH08	0.756	4.28	3.52	5y-EDAH08
EDAM08	1.005	4.28	3.28	5y-EDAM08
EDAU08	1.254	4.28	3.03	5y-EDAU08
EDAZ08	1.503	4.28	2.78	5y-EDAZ08
EDAH09	1.753	4.28	2.53	5y-EDAH09
EDAM09	2.002	4.28	2.28	5y-EDAM09
EDAU09	2.251	4.28	2.03	5y-EDAU09
EDAZ09	2.501	4.28	1.78	5y-EDAZ09
EDAH10	2.750	4.28	1.53	5y-EDAH10

The farther away from 0 the spread duration is the riskier the trade.

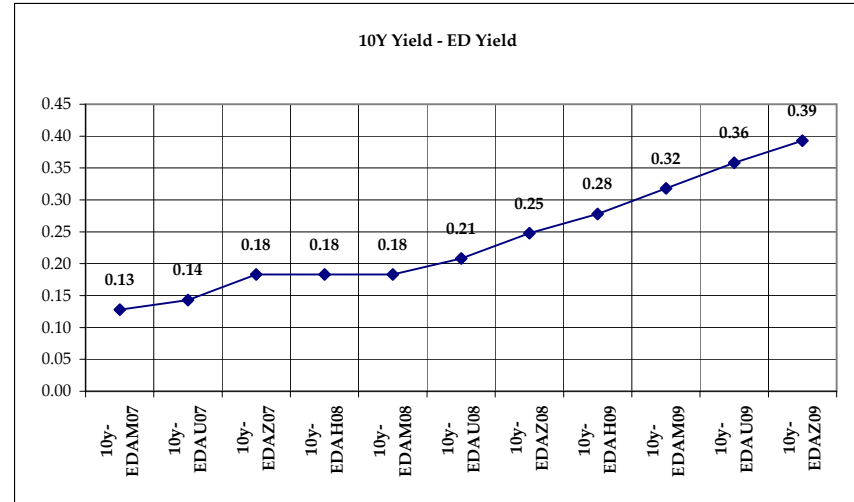
5yr YIELD, ED PRICE Correlation



TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	3.53	0.13	10y-EDAM07	-11.591
EDAU07	3.55	0.14	10y-EDAU07	-85.457
EDAZ07	3.59	0.18	10y-EDAZ07	-87.951
EDAH08	3.59	0.18	10y-EDAH08	-86.901
EDAM08	3.59	0.18	10y-EDAM08	-89.109
EDAU08	3.61	0.21	10y-EDAU08	-92.318
EDAZ08	3.65	0.25	10y-EDAZ08	-11.591
EDAH09	3.68	0.28	10y-EDAH09	-11.591
EDAM09	3.72	0.32	10y-EDAM09	-11.591
EDAU09	3.76	0.36	10y-EDAU09	-11.591
EDAZ09	3.80	0.39	10y-EDAZ09	-11.591
EDAH10	3.80	0.40	10y-EDAH10	-99.252

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days
 These are measuring YIELD correlations.

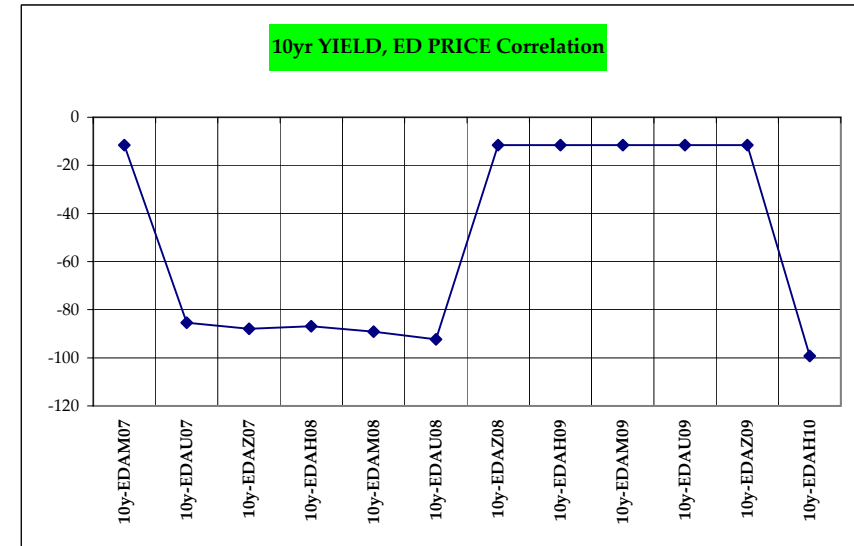


GE Duration as

	Fraction of year	10Y Duration	Spread Duration	
EDAM07	0.008	7.80	7.79	10y-EDAM07
EDAU07	0.257	7.80	7.54	10y-EDAU07
EDAZ07	0.506	7.80	7.29	10y-EDAZ07
EDAH08	0.756	7.80	7.04	10y-EDAH08
EDAM08	1.005	7.80	6.80	10y-EDAM08
EDAU08	1.254	7.80	6.55	10y-EDAU08
EDAZ08	1.503	7.80	6.30	10y-EDAZ08
EDAH09	1.753	7.80	6.05	10y-EDAH09
EDAM09	2.002	7.80	5.80	10y-EDAM09
EDAU09	2.251	7.80	5.55	10y-EDAU09
EDAZ09	2.501	7.80	5.30	10y-EDAZ09
EDAH10	2.750	7.80	5.05	10y-EDAH10

The farther away from 0 the spread duration is the riskier the trade.

10yr YIELD, ED PRICE Correlation

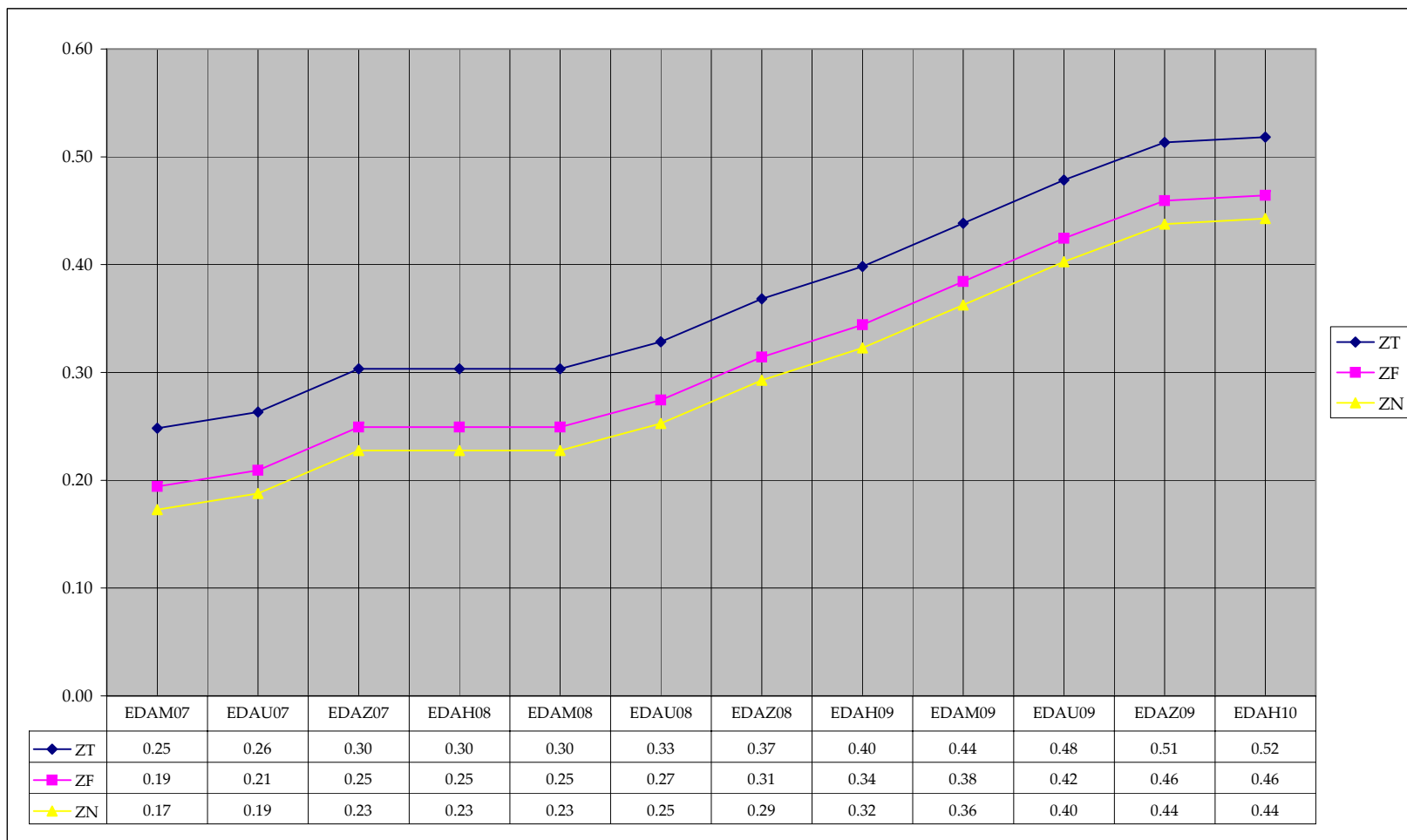


Dirty TED Curve

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Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

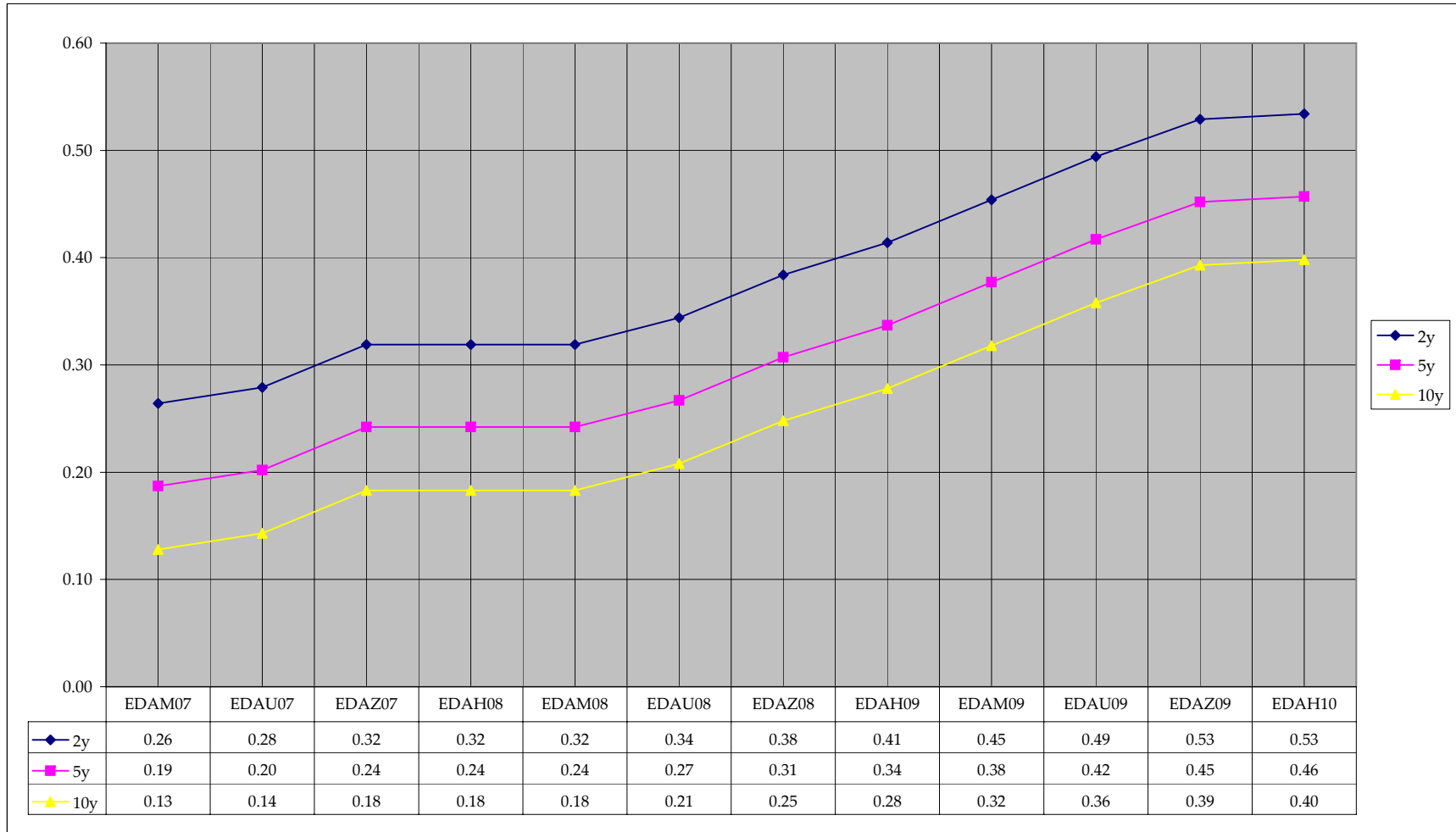


TED Curve

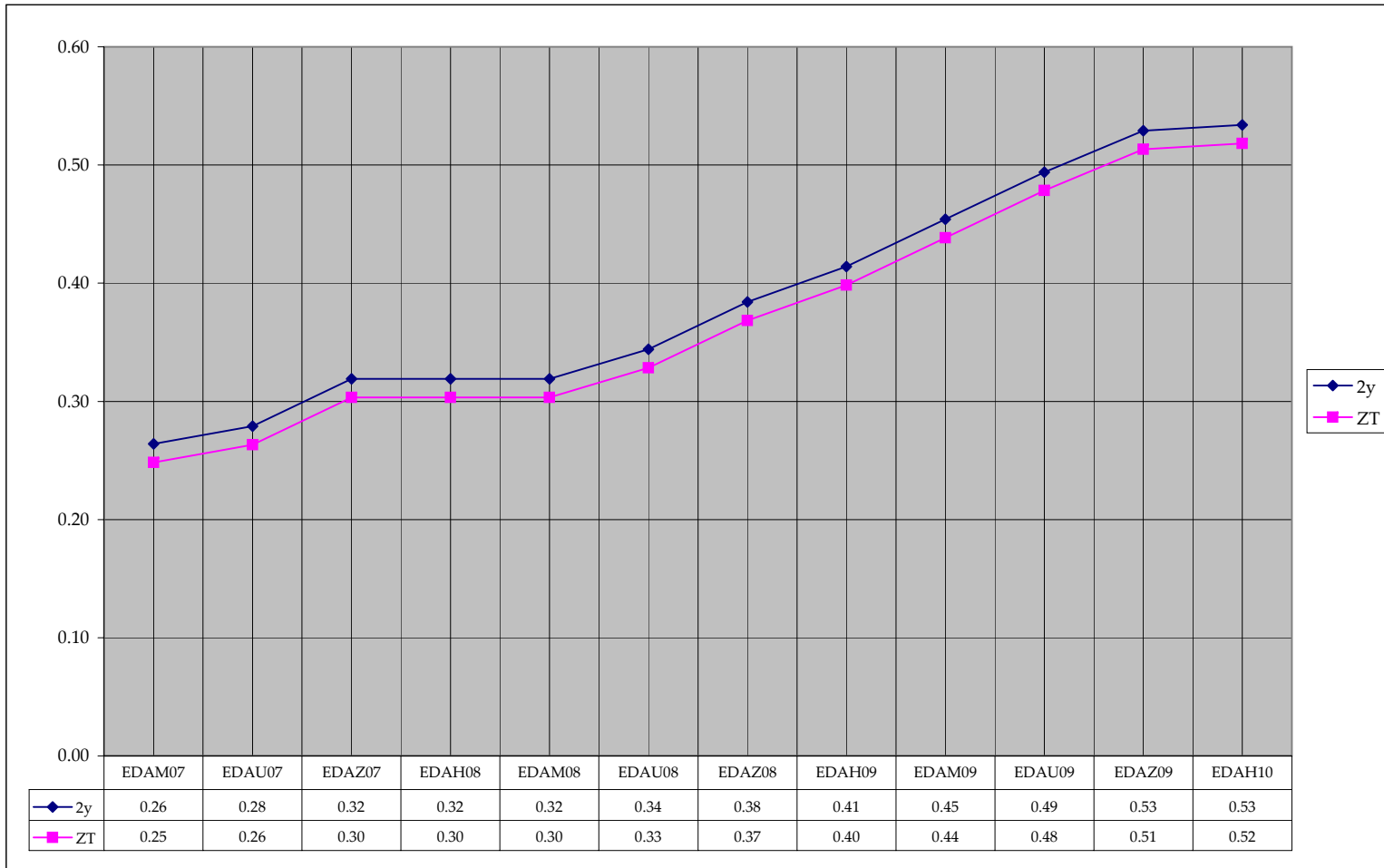
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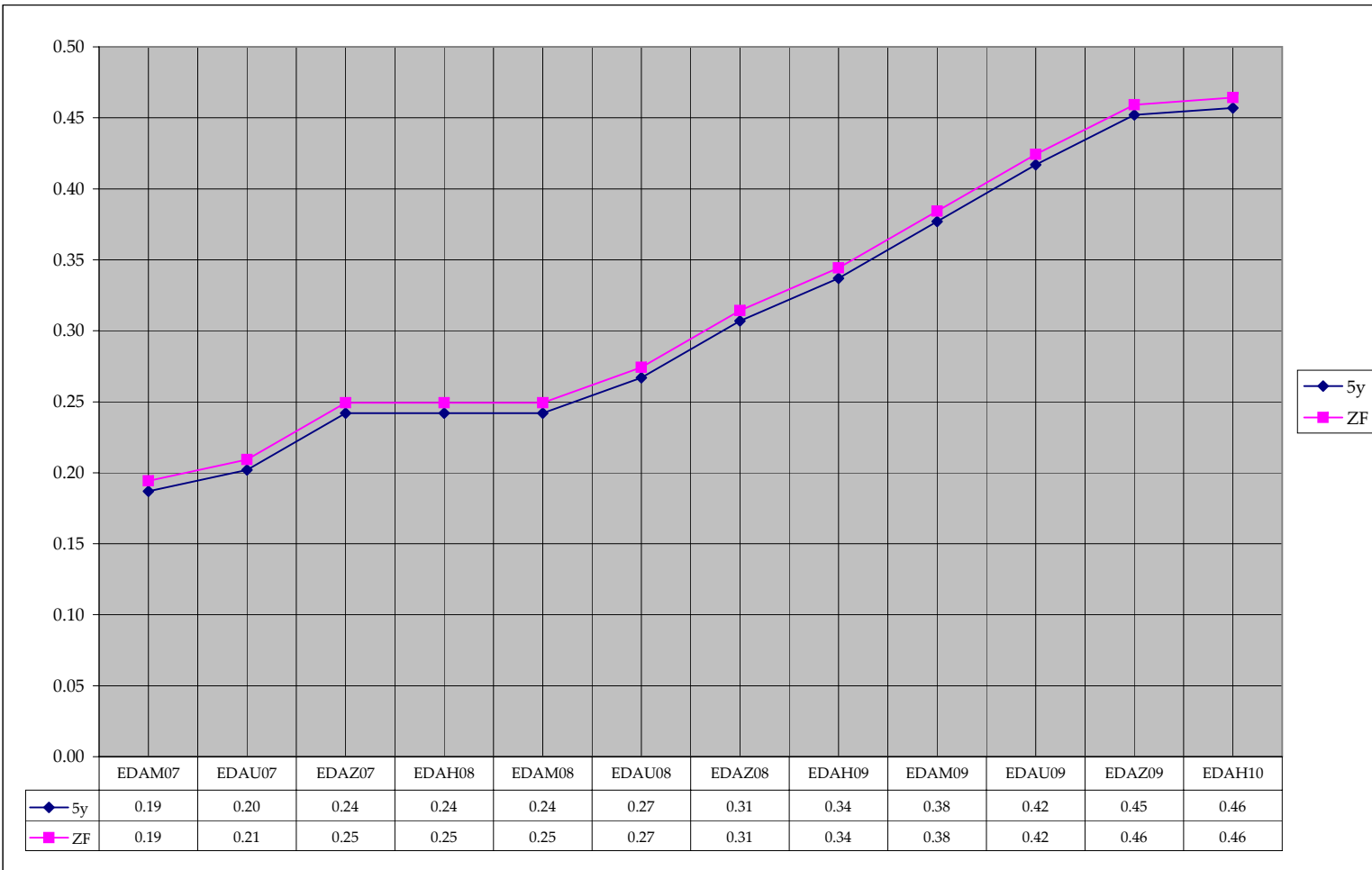
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve

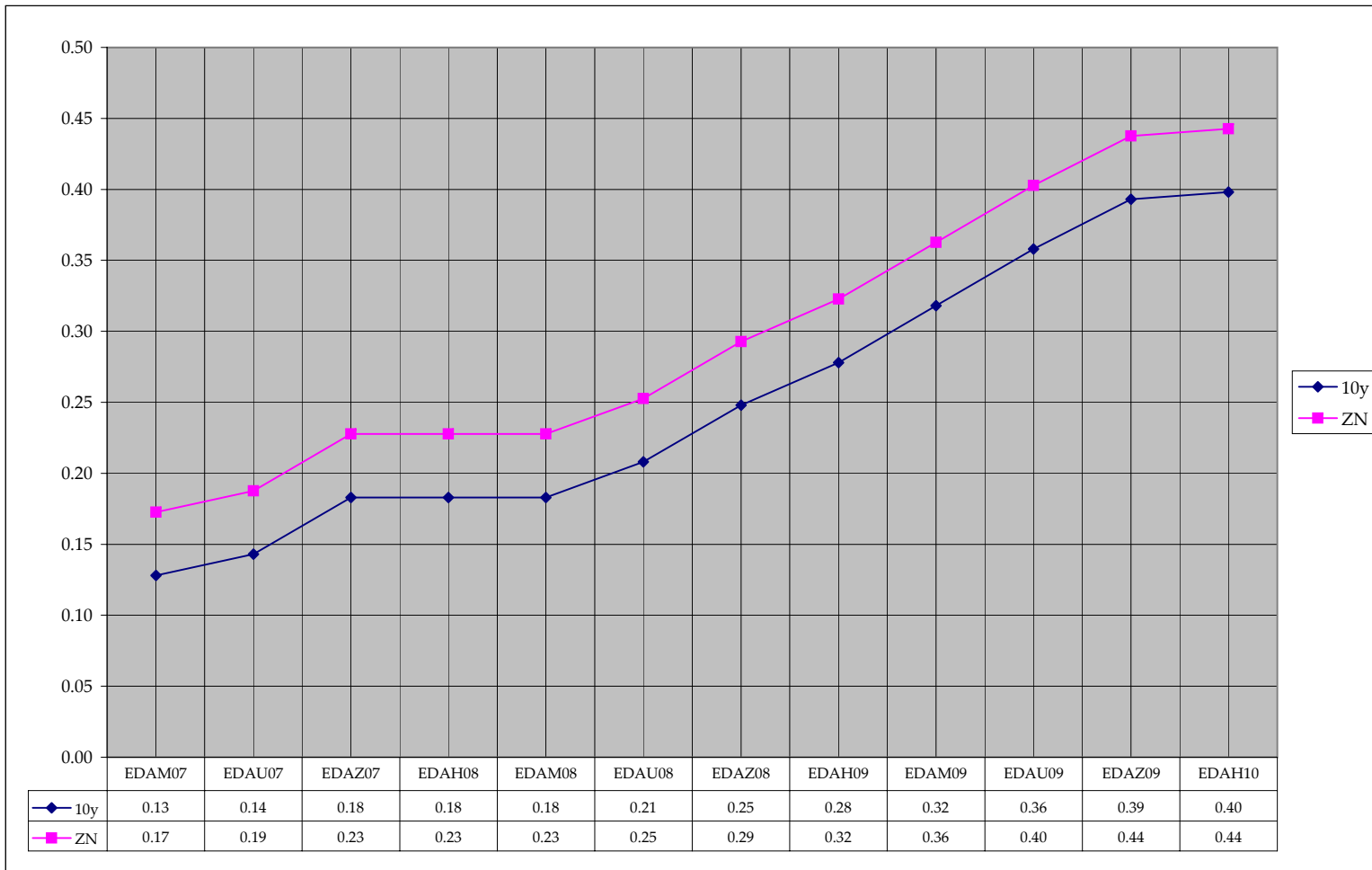


5y Basis TED Curve



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10y Basis TED Curve



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